

What is claimed is:

1. An expandable medical device comprising:
a plurality of cylindrical tubes each formed of a plurality of adjacent struts interconnected at alternating ends, the plurality of cylindrical tubes expandable from a first diameter to a second diameter at which the adjacent struts form substantially V-shapes, wherein the plurality of cylindrical tubes are arranged with the interconnected ends of the struts aligned facing each other in adjacent cylindrical tubes;
a plurality of S-shaped bridging elements connected between the interconnected ends of the struts in adjacent cylindrical tubes, wherein the bridging elements are connected entirely above a midline of the V-shapes on one cylindrical tube and entirely below the midline of the V-shapes on an adjacent cylindrical tube.
2. The device of Claim 1, wherein the S-shaped bridging elements have an undulating shape extending through greater than 360 degrees.
3. The device of Claim 1, wherein the bridging elements are located at a diagonal orientation such that a line extending through the connecting points on either end of each of the bridging elements is located at an angle with respect to a longitudinal axis of the cylindrical tubes.
4. The device of Claim 3, wherein all the bridging elements interconnecting two adjacent ones of the cylindrical tubes are located at the same diagonal orientation.
5. The device of Claim 1, wherein the bridging elements cross the midline of the V-shapes three times.
6. The device of Claim 1, wherein the bridging elements have a width less than a width of the struts.

7. The device of Claim 1, wherein the plurality of adjacent struts are interconnected by ductile hinges and circumferential links.
8. The device of Claim 1, wherein the bridging elements allow the device to bend axially.
9. The device of Claim 1, wherein the plurality of cylindrical tubes are arranged with the interconnected struts in one tube substantially at 180 degrees out of phase with respect to the adjacent cylindrical tubes.
10. An expandable medical device comprising:
a plurality of cylindrical tubes each formed of a plurality of adjacent struts interconnected at alternating ends, the plurality of cylindrical tubes expandable from a first diameter at which the adjacent struts are substantially parallel to one another to a second diameter at which the adjacent struts form substantially V-shapes, wherein the plurality of cylindrical tubes are arranged such that interconnected ends of the struts are aligned facing each other in adjacent cylindrical tubes;
a plurality of S-shaped bridging elements connected between the interconnected ends of the struts in adjacent cylindrical tubes, wherein each of the bridging elements cross a midline of the V-shapes three times and are connected entirely above the midline of the V-shapes on one cylindrical tube and entirely below the midline of the V-shapes on an adjacent cylindrical tube.
11. The device of Claim 10, wherein the S-shaped bridging elements have an undulating shape extending through greater than 360 degrees.
12. The device of Claim 10, wherein the bridging elements are located at a diagonal orientation such that a line extending through the connecting points on either end of each of the bridging element is located at an angle with respect to a longitudinal axis of the cylindrical tubes.

13. The device of Claim 12, wherein all the bridging elements interconnecting two adjacent ones of the cylindrical tubes are located at the same diagonal orientation.

14. The device of Claim 10, wherein the bridging elements have a width less than a width of the struts.

15. The device of Claim 10, wherein the plurality of adjacent struts are interconnected by ductile hinges and circumferential links.

16. The device of Claim 10, wherein the bridging elements allow the device to bend axially.